

Appalachian Alpine Zone" due to its similarity to the true alpine zones of the northern Appalachian Mountains of New England. High Elevation Rocky Summits support rare endemic plant species in numbers disproportionate to the extent of the community, including spreading avens (*Geum radiatum*) Roan Mountain bluet (*Houstonia montana*), Heller's blazing star (*Liatris helleri*), as well as many other rare endemic and disjunct species.

**High Elevation Seep** communities may occur in poorly-drained, open, bog-like areas or along forested drainages of mountain slopes where soils are wet. Most of the Watauga County seeps are forested. They are generally small, being limited to narrow areas along streams and at seeps. They support a variety of moisture-loving herbs such as umbrella-leaf (*Diphylleia cymosa*), jewelweed (*Impatiens* spp.), bee-balm (*Monarda didyma*), green-headed coneflower (*Rudbeckia laciniata*), branch lettuce (*Saxifraga micranthidifolia*), tassel-rue (*Trautvetteria carolinensis*), cowbane (*Oxypolis rigidior*), wood nettle (*Laportea canadensis*), and other species. Rare species such as American speedwell (*Veronica americana*), trailing wolfsbane (*Aconitum reclinatum*), large purple-fringed orchid (*Platanthera grandiflora*), and Gray's lily (*Lilium grayi*) may occur in them.

**Low Elevation Rocky Summit** occurs on exposed summits, usually at elevations below 4000 feet. These uncommon communities contain exposed, uneven rock surfaces with crevices, small ledges, and pits which accumulate organic soil accumulations. These herb-dominated communities often support live-forever (*Sedum telephioides*), Appalachian bellflower (*Campanula divaricata*), flowering spurge (*Euphorbia corollata*), greater coreopsis (*Coreopsis major*), cinquefoil (*Potentilla* sp.), summer bluet (*Houstonia purpurea* v. *purpurea*), marginal wood fern (*Dryopteris marginalis*), little bluestem (*Schizachyrium scoparium*), or others.

**Montane Acidic Cliff** is a relatively uncommon community that occurs on lower to mid slopes (i.e., generally not exposed mountain summits) where steep to vertical rock is exposed over an area large enough to create a break in the surrounding forest canopy. Vegetation is limited to shallow soil accumulations at crevices and ledges and is typically sparse, but often includes Michaux's saxifrage (*Saxifraga michauxii*), rockcap fern (*Polypodium* spp.), mountain spleenwort (*Asplenium montanum*), and a variety of opportunistic herbs and stunted trees from surrounding forests.

**Montane Oak--Hickory Forest** is fairly widespread in the mountains on dry to mesic soil on slopes and ridgetops at low to middle elevations. The closed canopy is dominated by a variable mixture of red oak (*Quercus rubra*), white oak (*Quercus alba*), chestnut oak (*Quercus montana*), scarlet oak (*Quercus coccinea*), black oak (*Quercus velutina*), and hickories (*Carya* spp.). The understory is typically moderately dense and contains understory trees such as flowering dogwood (*Cornus florida*), witch-hazel (*Hamamelis virginiana*), hop-hornbeam (*Ostrya virginiana*), and black gum (*Nyssa sylvatica*). The shrub layer can be sparse to dense with patches of mountain laurel (*Kalmia latifolia*), great rhododendron (*Rhododendron maximum*), and other common evergreen or deciduous shrubs. Herbs are usually a moderately dense collection of common species, with good representation by liliaceous (family *Liliaceae*) and asteraceous (family *Asteraceae*) species, as well as ferns.